

WHAT IS CLAIMED IS:

1. A discharge chamber for a lamp, the discharge chamber comprising a ceramic article having a main body defining an arc chamber and generally opposed end members defining openings which accommodate an electrode or electrode lead  
5 through, said ceramic article having the main body and at least one of the end members comprising a monolithic body.

2. The discharge chamber of claim 1 formed by injection molding.

10 3. The discharge chamber of claim 1 having a total transmittance of at least 95% of visible light.

4. The discharge chamber of claim 1 wherein said ceramic is alumina.

15 5. The discharge chamber of claim 4 wherein said alumina is doped with magnesia.

6. The discharge chamber of claim 1 wherein said main body is substantially cylindrical in shape.

20 7. The discharge chamber of claim 1 wherein said arc chamber is generally of an ellipsoid shape.

25 8. The discharge chamber of claim 1 wherein said end members comprise a generally disk shaped portion having an elongated tube extending from a face.

9. The discharge chamber of claim 1 wherein said main body and each of said end members comprises a monolithic body.

30 10. A method of making a ceramic discharge chamber comprising the steps of forming a mixture comprised of a ceramic powder and a binder and injecting said

mixture into a die and around a mold to form at least a main body of said discharge chamber.

11. The method of claim 10 wherein said ceramic powder is alumina.

5 12. The method of claim 10 wherein said binder is a wax.

13. The method of claim 10 further comprising injecting said mixture into said die to form a monolithic article having the main body defining the arc chamber and at least one end member wherein said mold is removable from said monolithic article after solidification of the mixture.

10 14. The method of claim 13 wherein said mold comprises a plug which is removable from said monolithic article after solidification of said mixture by melting or decomposition of the plug.

15 15. The method of claim 14 wherein removable pins support said plug during injection of said mixture into the die and create lead through or electrode openings in said at least one end member.

16. The method of claim 14 wherein said plug is a wax or polymeric material melting at a temperature greater than the melting temperature of said binder.

17. The method of claim 10 wherein said ceramic discharge chamber is slidably removed from said die along a longitudinal axis of said main body.

20 18. The method of claim 17 wherein said ceramic discharge chamber is also slidably separated from said mold.

19. The method of claim 13 wherein said monolithic article includes a main body and two end members.

20. A method of making a ceramic discharge chamber comprising the steps of forming a mixture comprised of a ceramic powder and a binder and injecting said mixture into a cavity within a die wherein said die is of a runnerless design having  
5 nozzle substantially directly injecting said mixture into the cavity.

21. The method of claim 20 wherein said nozzle comprises an element of said die.

22. A lamp including the discharge chamber of claim 1.

10